8.1 Practice B

In Exercises 1 and 2, evaluate the six trigonometric functions of the angle θ.

1.

2.
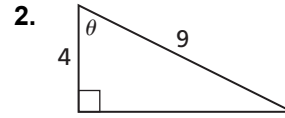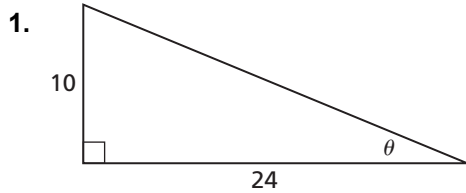
3. Evaluate the six trigonometric functions of the angle $90° - \theta$ in Exercise 1. Describe the relationships you notice.

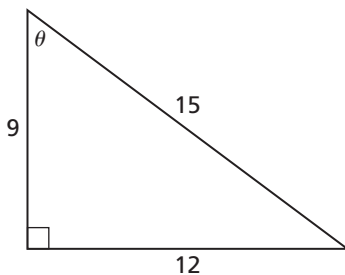**In Exercises 4–6, let θ be an acute angle of a right triangle. Evaluate the other five trigonometric functions of θ.**

4. $\cos \theta = \dfrac{5}{11}$
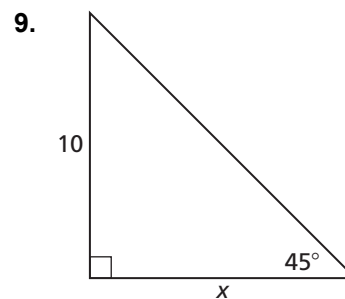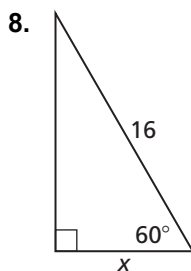**5.** $\cot \theta = \dfrac{7}{8}$
6. $\sec \theta = \dfrac{11}{9}$

7. Describe and correct the error in finding $\csc \theta$ of the triangle below.

$$\times \quad \sec \theta = \frac{\text{adj.}}{\text{hyp.}} = \frac{9}{15} = \frac{3}{5}$$

In Exercises 8 and 9, find the value of x for the right triangle.

8.

9.

10. A cable is attached to the top of a pole and mounted to the ground 3 feet from the base of the pole. The angle of elevation from the mounting to the top of the pole is $78°$. Estimate the height of the pole. Round your answer to the nearest tenth.